Draft Implementation Plan for Stage 1 Actions, Lower Sacramento River, North Delta Region Bundle (North Delta Regional Plan)

CALFED's Vision for the North Delta:
"Provide a Coordinated Regional Solution to Ecosystem, Watershed, Water Quality, Water Supply Reliability, and Flood Control Concerns in the North Delta Region"

INTRODUCTION

The CALFED Bay-Delta Program is a cooperative interagency effort of 15 state and federal agencies with management or regulatory responsibilities for the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) system. The mission of the Program is to develop a long-term comprehensive plan for restoring ecological health and improving water management for beneficial uses of the Bay-Delta system. Phase II of the Program, the programmatic planning phase, is currently nearing completion; this phase will culminate with the release of a Final Programmatic Environmental Impact Report/Environmental Impact Statement (PEIR/EIS) and a Record of Decision. Completion of Phase II will set the stage for Program implementation, which will require preparing project-specific environmental documentation tiered off the PEIR/EIS for discrete sets of related actions.

The CALFED Bay-Delta Program is composed of eight program elements:

- Ecosystem Restoration Program
- Water Quality Program
- Levee System Integrity Program
- Water Use Efficiency Program
- Water Transfers Program
- Watershed Program
- Storage and
- Conveyance

Implementation of the actions contained in each program element will be guided by a program implementation plan. These plans will focus on the early years of implementation for which needed actions are most easily identified, but will also reflect a long-term vision for continuing implementation over the next several decades. Implementation will take place in stages. This

approach allows for periodic assessment of the success and balance of the overall CALFED Bay-Delta Program and provides opportunities to alter direction and focus as necessary.

Stage 1 of the CALFED Bay-Delta Program implementation is expected to last about 7 years. Stage 1 consists of actions that have been proposed based on extensive participation by CALFED agencies and stakeholders. Descriptions of these actions were first circulated for broad public review and comment as part of the Revised Phase II Report, issued December 18, 1998.

Stage 1 actions were grouped into "bundles" for the purposes of achieving regional and programmatic balance; developing environmental documentation; establishing assurances; and facilitating financing, permitting, and implementation. The proposed bundles have been available for public review and comment since March 1999 through the Bay-Delta Advisory Council (BDAC), through CALFED's web site, and as part of the Draft PEIR/EIS released for public review and comment in June 1999.

To expedite implementation, it has been necessary to initiate the project-specific planning process well ahead of the completion of Phase II of the Program. Appropriate agency staffing, budgeting, and other resources need to be identified and allocated, and formal environmental documentation needs to be initiated for the highest priority actions. This document presents CALFED's approach to the project-specific planning process for one of its seven bundles of actions, the Lower Sacramento River, North Delta Region Bundle.

The Lower Sacramento River, North Delta Region Bundle is intended to provide benefits for several CALFED programs, including the Ecosystem Restoration Program, the Levee System Integrity Program, and the Water Quality Program, and to improve the conveyance of water through the Delta. The CALFED staff members responsible for implementing the Lower Sacramento River, North Delta Region Bundle coordinate their efforts with these other CALFED efforts to ensure that the actions in the bundle are implemented in a manner consistent with them.

DESCRIPTION

The Lower Sacramento River, North Delta Region Bundle (referred to in this document as the North Delta Regional Plan) consists of four actions to address concerns about flood control, ecosystem quality (including fisheries), water quality, and water supply reliability for the lower Sacramento River and north Delta region. The North Delta Regional Plan is described in detail in the "White Paper on North Delta Improvements – CALFED Bay-Delta Program". This report summarizes the information provided in the White Paper.

As shown in Figure 1, the Lower Sacramento River, North Delta Region Bundle Project Area is the area within which CALFED anticipates implementing actions under this bundle. The North Delta Regional Plan study area encompasses a larger area that includes the watersheds of the Cosumnes and Mokelumne rivers. Also included are the other tributaries of each river and

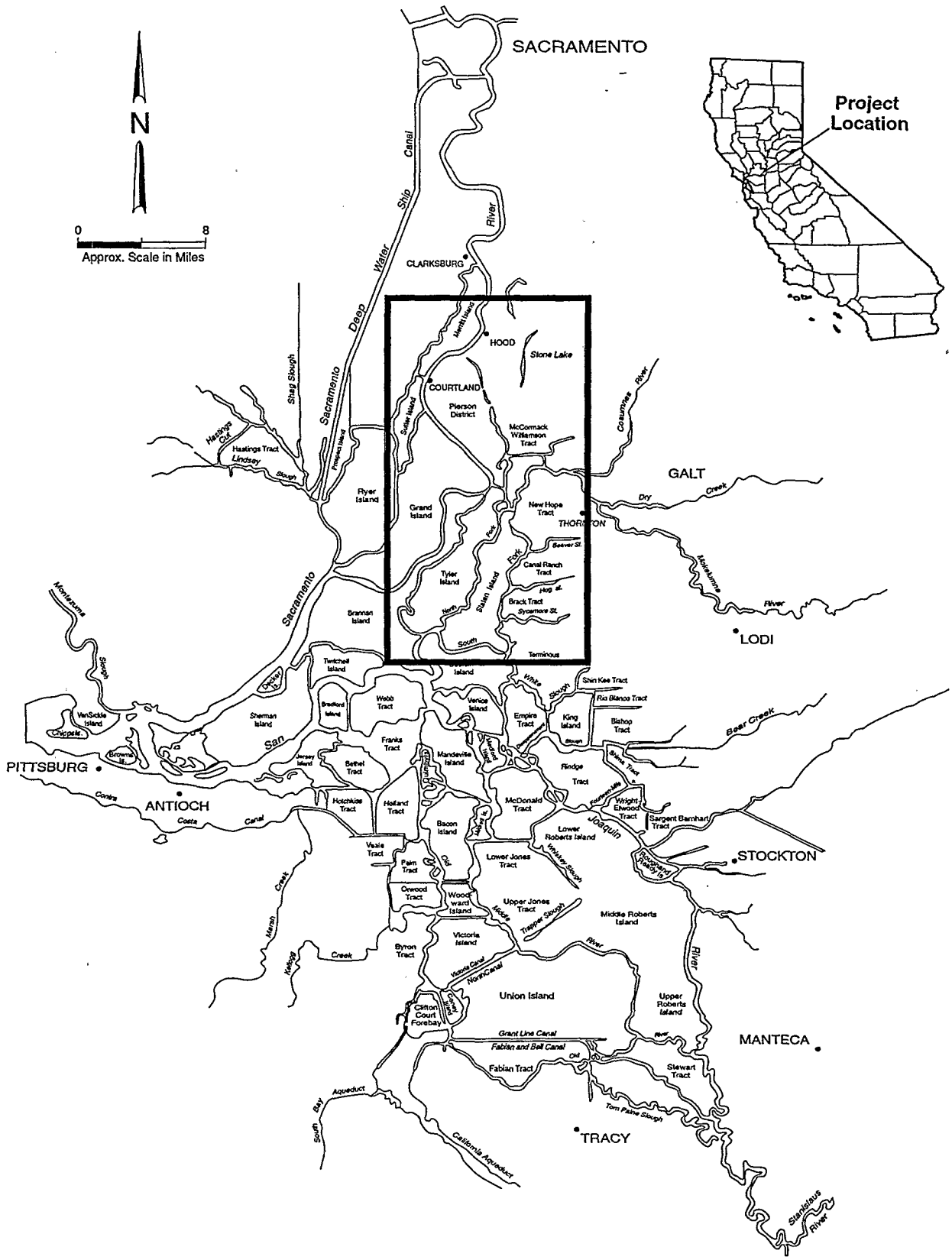

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Figure 1
CALFED North Delta Improvements Project Area

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adjacent lands, such as the Morrison Creek system including Beach-Stone Lakes and the Point Pleasant area.

CALFED will play two roles in the north Delta. The first role is to implement its North Delta Improvements. Four actions are planned for implementation in Stage 1 of the CALFED Program to fulfill this role:

1. implementing various potential flood control improvements, such as dredging and setback levees, along the north and south forks of the Mokelumne River;

2. undertaking actions on McCormack-Williamson Tract to provide flood control and habitat restoration benefits;

3. restoring habitat along Georgiana Slough to create wildlife and fisheries habitat; and

4. conducting a study of modifying operating rules for the Delta Cross Channel (DCC), and a study of the feasibility of constructing a 0- to 4,000-cfs screened diversion on the Sacramento River at Hood.

More detailed descriptions of each of these actions are provided in Appendix A.

CALFED's second role in the north Delta is to coordinate its activities with other Cosumnes and Mokelumne River restoration and flood control projects through the Mokelumne–Cosumnes Watershed Alliance (MCWA). A more detailed description of this role is provided in Appendix B.

IMPLEMENTATION

The purpose of this document is to advance the early implementation planning process for the North Delta Regional Plan. This purpose is achieved by recommending an approach to organizing actions into specific projects and defining their geographic and topical scope, proposing implementation responsibilities for the various CALFED agencies and stakeholder groups, identifying funding requirements, and laying out proposed implementation schedules. At this early stage in the planning process, some details regarding the North Delta Regional Plan have not yet been developed. Therefore, this document will continue to be modified as this additional information becomes available. It is anticipated that this document will be revised on a quarterly basis until the EIR/EIS process is formally initiated.

Organization and Responsibilities

Figure 2 provides an overview of the organizational structure for implementing the North Delta Regional Plan. More detail on the organizational structure is provided below in the descriptions provided for each action. As shown in Figure 2, three of the actions are considered a single project and are intended to be implemented together. This project will be analyzed in a project-level EIR/EIS tiered from the final CALFED PEIS/EIR. The fourth action is a feasibility study that does not require environmental documentation at this time.

Implementation of the first three actions will be undertaken by CALFED. The CALFED Policy Group (CALFED agency heads) will provide large-scale policy direction and the Bay-Delta Advisory Committee (BDAC) (CALFED stakeholders) will make provide stakeholder recommendations. The North Delta Improvements Group (NDIG)(agency staff members and north Delta area stakeholders) assisted CALFED in preparing the White Paper that served as the starting point for defining north Delta flood control improvement alternatives. The NDIG will continue providing guidance in the formulation of detailed alternatives. A team of agency staff members and consultants will support CALFED staff members in the planning and design of the project and in preparing environmental documents, permit applications, and bid specifications.

A permit review team is being assembled to provide guidance for the actions to be evaluated in an EIR/EIS (Actions 1-3). The Regulatory Review Team, whose proposed membership is listed in the following table, will provide a forum for staff members from regulatory agencies to influence project design and analysis methods. The Regulatory Review Team will enhance coordination among regulatory agencies with permit authority over implementation actions in the North Delta Regional Plan. Formation of this team is intended to facilitate permit processing, provide consistent review and mitigation requirements for all North Delta Regional Plan actions, and minimize conflicts between requirements imposed by various regulatory agencies.

Proposed Membership of the Regulatory Review Team

Agency	Member
California Department of Fish and Game	Frank Wernette
U.S. Fish and Wildlife Service	John Thomson
National Marine Fisheries Service	Elizabeth Campbell
Central Valley Regional Water Quality Control Board	Donna Podger
Reclamation Board	Ricardo Pineda
State Lands Commission	Diane Jones
U.S. Army Corps of Engineers – Regulatory Branch	Tom Coe
Natural Resources Conservation Service	Luana Kiger

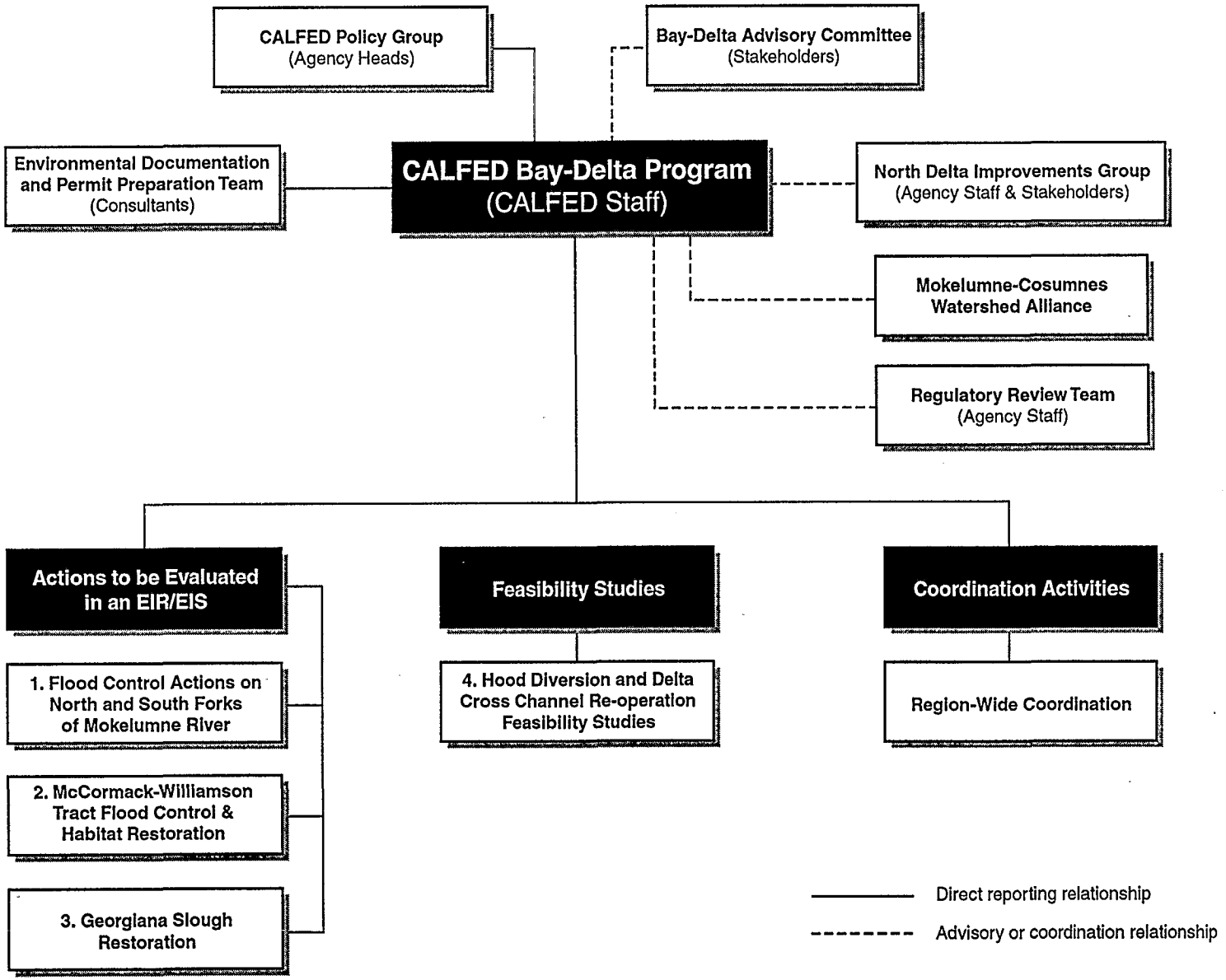

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Figure 2
Implementation Organization for Lower Sacramento River, North Delta Bundle

Figure 3 shows the staff-level organization for the implementation of the first four actions. Figure 4 shows an overview of the implementation schedule for the entire bundle of actions.

The proposed grouping of actions into discrete projects reflects consideration of project purposes, the expertise and statutory mandates of the various CALFED and local agencies, and the need to create manageable project teams. There is no one correct way to organize this work, and it is anticipated that the scope and structure of the proposed actions will be modified as detailed planning in close coordination with the affected agencies and stakeholders gets underway.

LINKAGES

CALFED recognizes the great importance of maintaining close coordination and linkages between its various actions to ensure balance, efficiency, and harmony between various interest groups. By proposing to implement Program actions as a series of discrete projects rather than a single comprehensive project, CALFED risks losing the very coordination and linkages so important to overall success. At the same time, it is clear from a practical standpoint that project-level planning must be divided into manageable units to move forward. Therefore, while striking this balance between very large integrated projects and smaller discrete projects, CALFED must give a great deal of attention to establishing and maintaining appropriate linkages between individual projects.

Some of the required linkages are already in place as part of the interim Program structure. CALFED Policy Group meetings, BDAC meetings, and stakeholder/agency meetings provide useful forums for communication about and coordination on implementation issues. The current budget processes, including budgeting at the federal, state, and local levels, provide further opportunities for coordination and negotiation to achieve a reasonable balance between competing priorities. In addition, existing laws and regulations provide a framework for agency decisions that can provide strong linkages expressed in the context of permit decisions and other actions.

However, additional linkage and assurance mechanisms need to be carefully considered on a case-by-case basis to assure all agencies and stakeholders that the appropriate balance and coordination will be achieved. Potential additional linkage mechanisms under consideration include contracts, legislation (including bond measures), interagency agreements, and agency directives. CALFED is committed to exploring and implementing the appropriate linkage mechanisms to ensure Program integration as implementation proceeds.

Additional information regarding coordination activities related to each of the Lower Sacramento River, North Delta Region Bundle actions is provided in Appendix A and B.

COST ESTIMATE

Preliminary cost estimates have not yet been prepared for the actions in the North Delta Regional Plan. These will be provided at a later time.

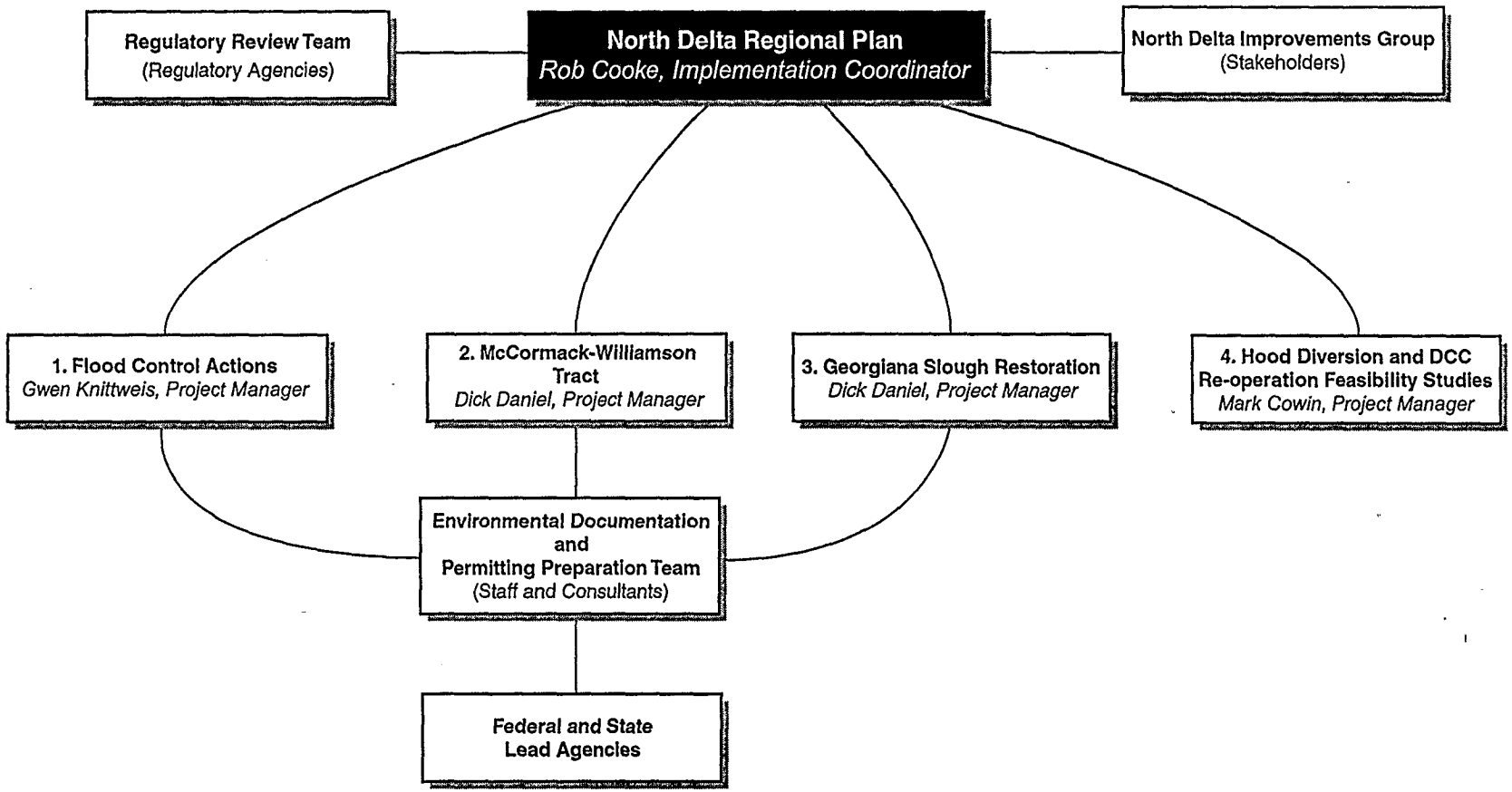

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Figure 3
Staff-Level Organization of Actions 1-4

Task Name	2000				2001				2002	2003	2004	2005	2006	2007
	1st Q	2nd Q	3rd Q	4th Q	1st Q	2nd Q	3rd Q	4th Q						
CALFED Record of Decision														
Actions 1-3: Flood Control, M-W Tract, Georgiana														
Project planning														
Environmental documents and permitting:														
Scoping														
EIR/EIS														
Permitting														
Implementation														
Action 4: Feasibility Study of Hood Diversion, DCC														
Action 5: MCWA Coordination														

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Figure 4
Preliminary Implementation Schedule for Lower Sacramento River, North Delta Bundle

APPENDIX A
CALFED PROJECT IMPLEMENTATION SUMMARIES

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Action #1. North Delta Flood Control Improvements

Purpose

The north Delta flood control improvements are intended to alleviate flooding in the north Delta in ways that are compatible with local land uses, regional flood control plans, and CALFED ecosystem restoration goals.

Background

The major flood problem in the north Delta is a lack of channel capacity in the Mokelumne and Cosumnes Rivers and the Morrison Creek stream group to safely convey the 100-year peak flows from Sierra Nevada watersheds through the north Delta to the San Joaquin River. The combined channel capacity required to safely convey flows from the 100-year flood event would be 90,000 cubic feet per second (cfs). Current channel capacities for the Mokelumne River are approximately 26,600 cfs in the North Fork and 13,300 cfs in the South Fork, for a total combined capacity of approximately 40,000 cfs. In addition to limitations related to channel capacity, further constrictions have developed at vulnerable areas in the channels during actual flood events; for example, boats have become lodged up against bridges, creating hydraulic dams that further stress the system. Areas that have been vulnerable to flooding in the north Delta area include the Point Pleasant area, McCormack-Williamson Tract, Dead Horse Island, Staten Island and New Hope Tract, Bract and Canal Ranch Tracts, and the Franklin Pond area.

The potential for flooding in the north Delta area threatens important public facilities and institutions. In the Franklin Pond area, Interstate 5 and the Union Pacific Railroad line were damaged during both the 1986 and 1997 flood events and the Rio Cosumnes Correctional Center was damaged and had to be evacuated during the 1997 event.

Sedimentation in the system is a concern, particularly in the South Fork of the Mokelumne River, because the accumulation of sediment over time decreases the capacity of a channel to carry floodflows. While dredging could be used to remove sediment, it is very difficult to obtain permits for dredging in this area because of environmental constraints. In the North Fork of the Mokelumne River, flow velocities are high enough to keep the channels scoured so sedimentation is less of a problem.

The north Delta has a significant history of overtopping and failure of the levee system during peak flows. Levees on McCormack-Williamson Tract and Dead Horse Island are frequently overtopped during large floods. Recent problems with the levee system include the structural failure of levees near Thornton and overtopping of levees on Tyler Island in 1986. In 1997, levees near New Hope Landing and Millers Ferry Bridge were in danger of failure and a structural levee failure on Staten Island threatened the island with inundation.

Description

The following possible flood control alternatives were developed by the North Delta Improvements Group and are described in some detail in the White Paper. These alternatives will be evaluated in a draft project-specific EIR/EIS; additional alternatives may be identified during the formal EIR/EIS scoping process.

- **Alternative ND-1 – No-Action.** Levees along New Hope, Canal Ranch, and Brack Tracts and those along Staten, Tyler, and Bouldin Islands will be eligible for funding to be upgraded to the PL84-99 standard under the CALFED Levee Program. These improvements are assumed to occur under the No- Action Alternative, but no additional improvements are assumed.

- **Alternative ND-2 - Dredging and Levee Raising.** Conduct dredging and raise levees on the North and South Forks of the Mokelumne River.

- **Alternative ND-3 - Flood Bypass/Setback Levees.** Increase Mokelumne River channel capacity by constructing setback levees. These levees would result in a channel width of approximately 1,500 feet. Setback levees could also be constructed to create a flood bypass. Several bypass configurations have been proposed, each including adding slope protection and elevating Walnut Grove-Thornton Road:

  - **Alternative ND-3.a - South Mokelumne River Bypass.** Construct 46,000 feet of setback levees and 12 overflow weirs on the South Fork.

  - **Alternative ND3.b - North Mokelumne River Bypass.** Construct 48,000 feet of setback levees, two overflow weirs, and internal levees on Staten Island to protect MT Ranch headquarters.

  - **Alternative ND-3.c - Tyler Island Bypass.** Construct a 49,000-foot setback levee and two weirs on Tyler Island.

- **Alternative ND-4 - Staten Island Floodway.** To provide storage for peak floodflows and lower peak flows elsewhere in the system, open up Staten Island to intentional flooding in conjunction with the use of McCormack-Williamson Tract for intentional flooding (see Action #2, "Flooding of McCormack-Williamson Tract"). This alternative also includes constructing 3,800 feet of setback levees, constructing 9,500 feet of interior levees to protect MT Ranch headquarters, elevating a section of Walnut Grove-Thornton road, constructing inlet and outlet weirs, adding slope protection to Staten Island levees, and acquiring a floodway easement.

- **Alternative ND-5 - Staten Island Floodway and South Mokelumne River Setback Levees.** Use Staten Island, in conjunction with McCormack-Williamson Tract, as a floodway. This alternative includes the key features of Alternative ND-4 and also includes constructing approximately 21,600 feet of setback levees along the South Fork of the Mokelumne River.

It is also recommended that other measures be taken to increase flood capacity. These recommended measures include modifying marina management and modifying bridges.

Implementing Agencies

Federal lead agency: To be determined (possibly U.S. Army Corps of Engineers)

State lead agency: California Department of Water Resources (Curt Schmutte)

Other coordinating agencies: California Department of Fish and Game, U.S. Fish and Wildlife Service, National Marine Fisheries Service, State Lands Commission, Reclamation Board, U.S. Bureau of Reclamation, and Natural Resources Conservation Service.

Required Resources

Preliminary cost estimates have not yet been prepared for the actions in the North Delta Regional Plan. These will be provided at a later time.

Coordination

Several levels of coordination are built into the organizational structure for implementing Actions 1-3 (see Figure 3). Coordination with the federal and state lead agencies will be handled by the Implementation Coordinator, the Assistant Implementation Coordinator, and the Project Managers for the lead agencies. Coordination with north Delta stakeholders will be accomplished through regular meetings of the North Delta Improvements Group. Coordination with regulatory agencies will be accomplished through regular meetings of the Regulatory Review Team. Coordination with other CALFED Bay-Delta Program elements (primarily Ecosystem Restoration, Water Quality, Levee System Integrity, Watershed, and Conveyance programs) will take place through regular meetings between the Implementation Coordinator and other CALFED Bay-Delta Program managers.

Schedule

See Figure 4.

Action #2. Habitat Restoration and Flood Control on McCormack-Williamson Tract

Purpose

To enhance habitat for fish and wildlife while providing increased flood protection for the north Delta.

Description

McCormack-Williamson Tract is bordered by both the Cosumnes and Mokelumne Rivers. This land is currently farmed. CALFED's vision for McCormack-Williamson Tract is to enhance shallow water, wetland, and riparian habitats and to use the island as a flood bypass to provide an increased level of flood protection for the region.

The Nature Conservancy has purchased McCormack-Williamson Tract for conversion to fisheries and wildlife habitat with funding through a CALFED Category III grant. Two other CALFED Category III grants have been awarded to the Department of Water Resources and the University of California, Davis, to undertake the following tasks related to restoration of McCormack-Williamson Tract:

- analyze historic hydrogeomorphic conditions on McCormack-Williamson Tract by obtaining and analyzing core samples from various sites on the tract,
- analyze current hydrologic and sedimentologic patterns,
- conduct baseline studies of aquatic resources in the vicinity of McCormack-Williamson Tract,
- conduct baseline studies of riparian resources on and in the vicinity of McCormack-Williamson Tract,
- design restoration program alternatives (including engineering and land use aspects) and complete environmental documentation, and
- manage monitoring data collected in previous tasks.

The work funded by CALFED represents the first steps in designing and implementing restoration activities on McCormack-Williamson Tract. Future steps will build on the research, data collection, and design work accomplished through the Category III grants.

Implementing Agencies

Unknown at this time.

Required Resources

Preliminary cost estimates have not yet been prepared for the actions in the North Delta Regional Plan. These will be provided at a later time.

Coordination

See Figure 2.

Schedule

See Figure 4.

Action #3. Georgiana Slough Restoration

Purpose

To improve fish and wildlife habitat in the north Delta.

Description

CALFED intends to restore tidal and riparian habitats along Georgiana Slough. CALFED has funded a pilot project to use bioengineering techniques to protect the banks of Georgiana Slough and plant native vegetation to provide tidal and riparian habitats along 7 miles of the slough.

The work funded by CALFED represents the first steps in designing and implementing restoration activities along Georgiana Slough. Future steps will build on the research, data collection, and design work accomplished through the Category III grants.

Implementing Agencies

Unknown at this time.

Required Resources

Preliminary cost estimates have not yet been prepared for the actions in the North Delta Regional Plan. These will be provided at a later time.

Coordination

See Figure 2.

Schedule

See Figure 4.

Action #4. Feasibility Studies of Delta Cross Channel Re-Operation And of a Hood Diversion

Purpose

The purpose of this action is to conduct two feasibility studies to improve water operations in the north Delta. One study will evaluate modifying the operational criteria of the Delta Cross Channel (DCC) to try to improve drinking water quality while maintaining or improving conditions for fish. A second study will evaluate the feasibility of using a screened diversion on the Sacramento River at Hood of up to 4,000 cubic feet per second (cfs) to improve drinking water quality.

Description

The first study will consider how operations of the DCC can be modified to help achieve several CALFED goals. The U.S. Bureau of Reclamation constructed the DCC in 1951 as part of the Central Valley Project. Its purpose was to improve water quality in the central and southern Delta when the Tracy Pumping Plant is diverting water. However, moving Sacramento River water into the Delta's interior through an unscreened diversion confuses migrating fish that are listed or proposed for listing under the Endangered Species Act. To protect these fish, the gates are often closed, reducing water quality in the central and southern Delta. This first study would evaluate alternative rules for operating the DCC so as to improve water supply reliability, drinking water quality, and flood control, without creating adverse effects on fish.

The second study will assess whether a screened diversion of up to 4,000 cfs would help achieve CALFED's water quality and flood control goals while maintaining or improving conditions for fish. If the first study (reoperation of the DCC) fails to achieve its goals, then the second study could lead to a pilot project consisting of a screened diversion with a channel between the Sacramento and Mokelumne Rivers. This pilot project would allow for analyses of impacts on upstream and downstream migrating fish as well as impacts on Delta species from changes in habitat resulting from increased flows in the eastern Delta. Following evaluation of the pilot project, a final decision would be made on whether the diversion channel and structure should continue to be used and, if so, what the operational rules and optimum size of the diversion should be.

Implementing Agencies

California Department of Water Resources

Required Resources

Preliminary cost estimates have not yet been prepared for the actions in the North Delta Regional Plan. These will be provided at a later time.

Coordination

The feasibility studies will be undertaken by CALFED with assistance from the California Department of Water Resources and the U.S. Bureau of Reclamation. See Figure 4.

Schedule

Completion of the feasibility studies is expected to require approximately 24 months. See Figure 4.

APPENDIX B

CALFED COORDINATION ROLE IN THE NORTH DELTA

Mokelumne-Cosumnes Watershed Alliance Coordination

Purpose

To support communication, partnership, and integration of the numerous ongoing and proposed projects in the Mokelumne and Cosumnes watersheds.

Project Description

CALFED has teamed with the San Joaquin County Council of Governments (SJCOG), the Sacramento Area Flood Control Agency (SAFCA), East Bay Municipal Utility District (EBMUD), and other interested parties to form the Mokelumne-Cosumnes Watershed Alliance (MCWA), building on SJCOG and SAFCA efforts to coordinate and integrate projects being conducted in the watersheds. Ongoing and planned projects involve fish passage improvements, habitat restoration and preservation, flood control, research and monitoring, and watershed management. The intent of MCWA is to provide a mechanism for coordinating and integrating activities to avoid conflicts between projects and to take advantage of opportunities for synergy between projects so that the overall goal of a healthier watershed can best be achieved.

The MCWA's area of focus is the Mokelumne and Cosumnes watersheds. Also included are the other tributaries of each river and adjacent lands, such as the Morrison Creek system including Beach-Stone Lakes and the Point Pleasant area. The MCWA will function as a coordinator and information clearinghouse for ongoing and future projects in this area.

Activities of the MCWA include, but are not limited to, the following:

- **Facilitating communication.** The MCWA provides a forum for agencies to describe and summarize the status of individual projects and programs and identify areas of common interest. Meetings include affected stakeholders and other interested parties. CALFED coordinates and provides administrative support for these meetings.

- **Identifying conflicts.** The MCWA provides a forum for identifying, discussing, and developing recommendations for resolution of conflicts.

- **Addressing regulatory concerns.** The MCWA acts as a clearinghouse to keep regulatory agencies informed of all projects being planned or implemented in the watersheds and allows their concerns to be integrated into project planning.

- **Optimizing resources.** The MCWA convenes focused subgroups to share information and data on, for example, hydraulic modeling and geographic information systems, outreach and stakeholder identification, and web page development.

- **Identifying funding opportunities.** Opportunities to obtain state and federal funding are significantly enhanced if proposed projects are multipurpose and have broad support of member agencies.

- **Encouraging partnerships and improving integration.** The MCWA provides a forum for potential partnerships to develop.

- **Developing and managing a stakeholder database.** The MCWA develops and regularly updates a master database of stakeholders and a Geographic Information System (GIS) map of resources and general land uses.

- **Assisting and facilitating stakeholder outreach and education.** The MCWA team develops a database of existing projects in the watershed, contacts watershed project managers on a monthly basis to collect information about each of the projects, and develops and distributes a quarterly newsletter.

- **Developing and managing a web page.** The MCWA develops and manages a web page to disseminate information (www.mcwatershed.org).

- **Provide assessment reports.** The MCWA periodically assesses how the program is functioning and provides assessment reports identifying any deficiencies and steps to be taken to address them.

The ongoing and proposed projects in the Mokelumne and Cosumnes watersheds are shown in the following table.

Ongoing and Proposed Projects in the Mokelumne and Cosumnes Watersheds

Projects	Sponsors	Activities
The Lower Mokelumne River Restoration Project	Woodbridge Irrigation District and the City of Lodi	Remove barriers to anadromous fish migration, support riparian restoration efforts, minimize ecological stressors, and restore spawning grounds.
The Cosumnes River Task Force	Lower Cosumnes Resource Conservation District (RCD), Sloughhouse RCD, Florin RCD, and Amador RCD	Develop a long-term strategy to encourage restoration of watershed health and improve flood management.
Joint Settlement Agreement for the Mokelumne River	Federal Energy Regulatory Commission, California Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS), and East Bay Municipal Utilities District (EBMUD)	Provide reasonable protection to and enhancement over current conditions for the anadromous fishery and ecosystem of the lower Mokelumne River, including flow enhancement, riparian restoration, aquatic habitat restoration, reduction/eradication of invasive non-native vegetation from riparian corridors, restoration of natural flows of sediment and large woody debris, and biological monitoring.
The Lower Cosumnes River Feasibility Study	U. S. Army Corps of Engineers (USACE) and the Nature Conservancy (TNC)	Assess, identify, and implement ecological restoration and non-traditional flood damage reduction alternatives.
The Mokelumne River Feasibility Study	USACE and EBMUD	Assess, identify, and implement ecological restoration and non-traditional flood damage reduction alternatives. Mimic natural flow regimes through innovative reservoir management.
The Lower Mokelumne River Stewardship Program	San Joaquin RCD	Prepare a watershed stewardship plan and implement priority watershed stewardship efforts in the lower Mokelumne River watershed from Camanche Dam to the Cosumnes River. Implement an Environmental Farm Plan encouraging voluntary agricultural assessment and reduction of non-point source pollutants and conduct biological monitoring.

San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (HCP) Program	San Joaquin Council of Governments	Provide mitigation, enhancement, and compensation for development resulting in conversion of open spaces to non-open space uses. This plan mitigates impacts on threatened, endangered, and other special-status species in San Joaquin County through habitat protection and restoration. Habitat projects may include acquisition of conservation easements on riparian areas along Lower Mokelumne.
The Cosumnes Consortium Research and Monitoring Program	University of California, Davis, Center for Integrated Watershed Science and Management	Conduct fluviogeomorphic-ecological studies of the Cosumnes and Mokelumne Rivers.
The Cosumnes River Preserve	TNC, DFG, California State Lands Commission, Department of Water Resources, Ducks Unlimited, Sacramento County, U.S. Bureau of Land Management, and private landowners	Protect and restore critical habitats along the Cosumnes and Mokelumne Rivers and support natural resource-sensitive agricultural practices.
Protection of the Point Pleasant Area and Portions of the Franklin Pond Area	Sacramento County	Conceptual plan for improvements to increase flood protection for Point Pleasant and some of the Franklin Pond residents and to protect important public facilities and institutions in the Franklin Pond area. Construction of the improvements will increase water levels in the North Delta area during peak floods. As a result, implementation is on hold pending identification of feasible mitigation measures.
CALFED North Delta Investigation	CALFED	Team of stakeholders assembled to formulate a project that provides ecosystem restoration, improved through-Delta conveyance, and flood control in the north Delta region.
South Sacramento Stream Group Project	Sacramento Area Flood Control Agency, USACE, Reclamation Board (proposed sponsor)	Address flood risks along creeks in urban South Sacramento through a combination of flood control alternatives. The proposed project also includes recreational amenities and an environmental restoration component in the Sacramento County Regional Treatment Plant bufferlands.

Implementing Agencies

Administrative lead: CALFED

Entities pledging financial support or in-kind services include CALFED; City of Lodi; EBMUD; Natural Resources Conservation Service, Sacramento County; the Nature Conservancy; SAFCA; Sacramento County; San Joaquin County Council of Governments; San Joaquin County RCD; UC Davis Center for Integrated Watershed Science and Management; U.S. Army Corps of Engineers, Sacramento District; and Woodbridge Irrigation District.

Required Resources

Unknown at this time.

Coordination

This action is entirely a coordination action. CALFED Bay-Delta Program staff from the Lower Sacramento River, North Delta Region Bundle implementation team will provide administrative and facilitation support to the Mokelumne-Cosumnes Watershed Alliance, as described above and shown in Figure 2.

Schedule

MCWA coordination is ongoing.